



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,388	01/09/2004	Kang-Ping Lin	MR2561-137	6089
4586	7590	05/03/2006	EXAMINER	
ROSENBERG, KLEIN & LEE 3458 ELLICOTT CENTER DRIVE-SUITE 101 ELLICOTT CITY, MD 21043			FAULCON JR, LENWOOD	
			ART UNIT	PAPER NUMBER
			3762	

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/753,388

Applicant(s)

LIN ET AL.

Examiner

Lenwood Faulcon, Jr.

Art Unit

3762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 13-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 13-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-6 and 13-18 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In regards to claim 1, Examiner takes the position that it is unclear as to whether the claim language limitation regarding "contact by two fingers" is directed to two fingers contacting each of the two electrodes, or if the limitation is two fingers of each hand contacting both of the electrodes. Similarly, in regards to claim 13, Examiner takes the position that it is unclear as to whether the claim language limitation regarding contact by two fingers" is directed to two fingers contacting each of the electrodes, or if the limitation is two fingers of each hand contacting each of the electrodes.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6, 13-15 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills et al. (U.S. Patent No. 5,317,269) as applied to claims 1-6 and 13-18 in the previous Office Action of October 19, 2005, and further in view of Lo et al. (U.S. Patent No. 5,738,104).

Lo et al. teaches of a ECG heart rate monitor, four gel-less electrodes (40, 41, 42, 44) that are disposed in the recess of an handle grips (36, 38) and extend circumferentially around a long handle bar (Figure 3, lines 16-18), in which these electrodes are adapted to be in contact with a patient's hands (col. 8 lines 3-12). Lo et al. also teaches of the system comprising a differential amplifier (60) and an additional amplifier (66), which Examiner interprets to be a pre-amplifier and an output amplifier respectively (col. 9 lines 9-14 and 55-57).

In regards to claims 1 and 13, Examiner takes the position that either pair of electrodes (40 and 41 or 42 and 44) on either handle grip (36 or 38) as taught by Lo et al. is adapted to be in contact with at least two fingers of a patient's hand, and when both handle grips are used in combination, the system provides contacts for at least two fingers on each of the patient's hands. Examiner also takes the position that each single electrode of a pair, is inherently capable of being in contact with at least two fingers of a hand, since at least two fingers could be in contact with an electrode. Further, it appears that the circumferential electrodes as taught by Lo et al. provide the same benefit Applicant argues is a benefit of the claims 1 and 13, which is providing a relatively large contact (page 10 lines 5-10).

Examiner, acknowledges that Lo et al. reference does not specifically teach of a shell with a long cube shape, comprising electrodes passing over at least edge of the shell; however, Examiner takes the position that shape of the shape is only critical to the extent that the shell is adapted to be in contact with a person's hand and provide contact with at least two fingers per electrode contact. Further, Examiner takes the position that it would be an obvious design choice to one having ordinary skill in the art to provide a cube shaped shell as claimed by Applicant, rather than a cylindrical shaped shape shell as taught by Lo et al. Again, Examiner takes the position that the handle grips as taught by Lo et al. provide the same benefits as Applicant's system. Further, Examiner takes the position that Lo et al. teaches that electrode placement on handlebars (Figure 3) can be adapted to function in other embodiments such as a wristwatch (Figure 1).

It would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of Mills et al. with the teachings of Lo et al. Mills et al., and Lo et al. both teach of cardiac monitors that measure ECD data detected by electrodes in contact with a patient's hand, and thus teach of analogous arts. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system as taught by Mills et al. to include a electrodes that are capable of contacting at least two fingers of each hand, since this type of electrode arrangement is commonly know in the art to provide efficient contact with a patient's hand for producing ECG data, as taught by Lo et al. Further, Lo et al. teaches that the electrode contacts and system on the handlebar embodiment (Figure 3) can be adapted to for use in a

Art Unit: 3762

wristwatch embodiment (Figure 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of Mills et al. and Lo et al., to have the limitations of claims 1-6, 13-15 and 17-18.

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills et al. (U.S. Patent No. 5,317,269) in view of Lo et al. (U.S. Patent No. 5,738,104) as applied to claims 1-6, 13-15 and 17-18 above, and further in view of Dunseath (U.S. Patent No. 4,865,039) as applied in the previous Office Action of October 19, 2005.

It would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of Mills et al., Lo et al. and Dunseath. Mills et al., Lo et al. and Dunseath all teach of cardiac monitoring system that comprises an electrode for detecting biopotentials existing on the surface of a living body, and thus teach of analogous arts. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system as taught by Mills et al. to use electrodes made of silicone rubber as taught by Dunseath, since it is well known in the art to provide efficient and effective detection of biopotentials. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of Mills et al., Lo et al. and Dunseath to have the limitations of claim 16.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lester et al. (U.S. Patent No. 4,129,125), Sekine (U.S. Patent No. 4,844,090), Righter (U.S. Patent No. 5,191,891), Mills et al. (U.S. Patent No.

5,289,824), Mills et al. (U.S. Patent No. 5,613,495), Amano et al. (U.S. Patent No. 6,241,684), Scalisi et al. (U.S. Patent No. 6,363,274), Chen (U.S. 2005/0148889).

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lenwood Faulcon, Jr. whose telephone number is 571-272-6090. The examiner can normally be reached on Monday-Thursday from 9 to 5 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela D. Sykes, can be reached on 571-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3762

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lenwood Faulcon, Jr.



George Manuel
Primary Examiner